VARENA.tpt
your competent partner for procurement of raw materials

WATER-BORNE technology
VARANOVA
PRODUCTS WITH PRESPECTIVE

HIGH QUALITY
ACRYLIC EMULSION

Range of Applications

- Gravure Inks
- Inkjet Inks
- Screen-printing Inks
- Printing Inks
- Overprint Varnishes
- Automotive
- Marine and Protective
- Decorative
- Adhesives and Building Adhesives
- Wood & Furniture
- Concrete
- Plastic Coating
- Sealers
- Road Marking

TECHNOLOGIES FOR A SECURE FUTURE

HIGH QUALITY ACRYLIC DISPERSION

The stability of commercially available anionic acrylate copolymers in water is improved by neutralising existing acid groups (e.g. acrylic acid) with alkaline neutralising agents such as ammonia. The addition shifts the pH from the acidic to the basic alkaline range.

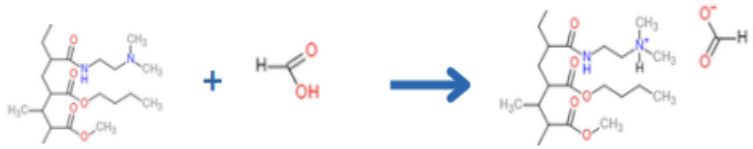
The stability of cationic acrylates is also improved, but the charges are reversed - basic monomers such as dimethylaminoethyl acrylate are used instead of acrylic or methacrylic acid. These are then neutralised with an acid such as formic acid. Neutralisation thus shifts the pH from the basic to the acidic alkaline range.

Accordingly, cationic acrylates differ from anionic acrylates in the charge of the polymer chain. The positive charge also leads to the main advantage of this binder group: the excellent insulating properties against wood ingredients and other anionic contaminants.

High-Performance

WOOD & JOINERY COATINGS

Beautifying wood with Vara Nova Tec for industrial wood coatings. Vara Nova Tec industrial wood coating resins are used in many clear and pigmented paints for furniture, kitchen cabinets and parquet. Our broad range of resin technologies for industrial wood coating includes various acrylic and polyurethane polymers and copolymers, and water-based and UV systems for clear and pigmented paints.



Areas of application

- Paint and architectural coatings
- Printing inks

Insulating effect

There are 25,000 different species of wood in the world, hundreds of which are regularly traded. Wood has many characteristics - it ‘works’ (shows shrinkage/expansion due to water absorption or release); it has different proportions of hardwood and softwood; it must be protected from infestation; and it contains different wood constituents. Some of these wood ingredients are water-soluble and are dissolved by the immigrating water when coated with waterborne coating systems. When the water evaporates during the drying process, it transports the dissolved contents to the paint surface. Because some of these ingredients are coloured, the surface turns yellowish or reddish. This process is called ‘bleedthrough’.

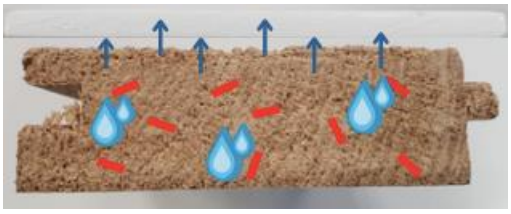
The type and quantity of water-soluble wood ingredients varies greatly. Tropical woods in particular contain very high amounts. In Europe, oak is one of the wood species with a very high content.

The main wood constituents are the tannins, some of which have an acidic character and can thus form a negative charge or partial charge. A cationic binder provides an electrostatic barrier for these anionic molecules. Thus, the colourant molecules do not reach the coating surface and discoloration is prevented.

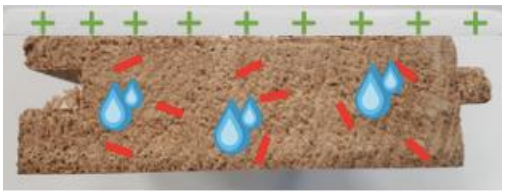
The mechanism of insulation described allows a visible insulating effect to be achieved as early as the application of the first coat, whereas aqueous anionic insulating coatings require at least two coats. The mechanism of action of alkyd resins/emulsions, for example, is good penetration and thus impregnation - the water of the second coating no longer reaches the tannins.

Wood contains water-soluble components

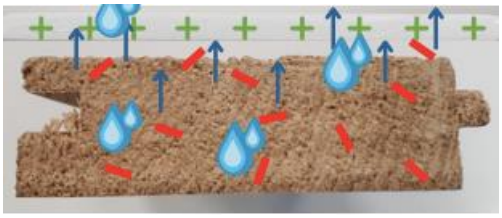
applying a waterborne paint, water migrates into the wood



The evaporating water transports water-soluble ingredients to the surface - this leads to discolorations



The positively charged parts of the cationic layer form a barrier



This barrier retains the mostly negatively charged wood constituents

VARAMUL; Acrylic resins, water-based dispersions, solutions

Product	Monomer	Supply Form [%]	pH value	MFFT [C°]	Viscosity [mPa.s]/20°C	Main uses and characteristics
AE 1107	Methacrylic copolymer	40 in water	7.2-8.0	>95	max. 500	As mixing component universally suitable for improving film hardness, sandability, blocking resistance and stackability.
AE 1120	Styrene acrylic emulsion	49 in water	8.2-9.0	15	200-800	Corrosion inhibiting primers on different metals (e.g. iron, aluminium), wood with weather resistance.
AE 1135	Styrene acrylic emulsion	42 in water	7.5-8.5	39	max. 100	Top coats on metal, wood, plastics (PS, ABS), also for temporary anti-corrosive primers on metal, can be combined with water-thinnable alkyd resins.
AE 1137	Styrene acrylic emulsion	42 in water	7.5-8.5	28	max. 200	Allround emulsion for top coats on plastic, metal, wood and for corrosion inhibiting primers with very good adhesion on steel and low water absorption.
AE 1158	Styrene acrylic copolymer emulsion	49 in water	7.5-8.0	5	max. 500	Self-crosslinking styrene modified acrylic emulsion for primers with excellent results in corrosion protection tests.
AE 1177	Core-shell-dispersion	45 in water	7.0-8.0	5	max. 500	Core-shell-dispersion for the production of solvent-free decorative paints and glazings.
AE 1186	Pure acrylic emulsion	46 in water	8.0-9.0	56	max. 500	Very hard polymer improving the surface properties like hardness, sanding and blocking resistance in water soluble lacquer systems. Very good compatibility with AE 1177.
AE 1189	Methacrylic copolymer emulsion	49 in water	7.0-8.0	16	max. 200	Flexible binder for fast setting high initial.
AE 1117	Modified styrene copolymer emulsion	45 in water	7.8-8.9	0	max. 200	Especially suitable for the production of slip-resistant coatings for insulation boards.
AE 1110	Pure acrylic	45 in water	8.0-9.0	39	max. 500	Self-crosslinking acrylic polymer for the formulation of aqueous furniture lacquers with good resistance against household chemicals.
AE 1145	Pure acrylic emulsion	45 in water	7.0-8.0	0	max. 500	Good blocking stability, in combination with PU-dispersion wood, parquet lacquers and top coats for wood can be formulated.
AE 1116	Pure acrylic emulsion	55 in water	7.0-8.0	0	max. 500	Self-crosslinking pure acrylic emulsion with high solid content for formulating block-resistant, high gloss emulsion paints with very good leveling properties, low VOC value in pigmented top coats, solvent-free formulations are possible for glazings and colourless systems.
AE 1146	Pure acrylic emulsion	55 in water	7.0-8.0	13	200 – 800	Self-crosslinking pure acrylic emulsion for the formulation of blocking resistant, high gloss brushable paints with a low VOC-content.
AE 1152	Acrylic emulsion	50 in water	8.5-9.0	14	600 – 2.400	For manufacturing dispersion paints for indoor and outdoor application and coloured quartz sand plaster.
AE 1104	Copolymer Dispersion	60 in water	2.5-5.0	0	max. 2.000	A soft copolymer dispersion with a high solids content, for pressure-sensitive adhesives (labels, adhesive tapes) or as co-binders in other aqueous adhesive, good adhesion on difficult surfaces, flexible and self-adhesive film.
AE 1129	Acrylic emulsion	50 in water	8.5-9.0	5	max. 2.000	For manufacturing dispersion paints for indoor and outdoor application and coloured quartz sand plaster.

VARAMUL; Acrylic resins, water-based dispersions, solutions

Product	Monomer	Supply Form [%]	pH value	MFFT [C°]	Viscosity [mPa.s]/20°C	Main uses and characteristics
AE 1174	Aqueous, self-crosslinking acrylate dispersion	40 in water	7.5-8.5	14	max. 200	AE 1174 is suitable for the production of wet-transparent wood stains with good ethanol resistance. The binder is suitable for spray application and shows a very high drying speed, naturally depending on the solvent selection.
AE 1112 H	Cationic pur-acrylic emulsion	40 in water	4.0-6.0	-	5.000 – 8.000	AE 1112 H is ideal as filler binder or as colorless or pigmented sealing primer on woods with a high proportion of soluble wood content AE 1112 H is also particularly suitable for the production of nicotine insulating paints and transparent glazing. Excellent barrier effect. and also pigment compatibility.
AE 1171 W	Cationic pur-acrylic emulsion	26 in water	4.5-5.5	-	300 – 800	AE 1171 W is ideal as filler binder or as colorless or pigmented sealing primer on woods with a high proportion of soluble wood content. The product prevents the bleeding of these ingredients and protects the following applied coatings against discoloration, blistering and loss of adhesion. AE 1171 W is also particularly suitable for the production of nicotine insulating paints and transparent glazing. Excellent barrier effect. and also pigment compatibility.
AE 1151	Anionic styrene acrylic dispersion	50 in water	7.5-8.5	20	2.000 – 5.000	For the production of emulsion paints for the Painting area inside and outside. The MFT can with the usual film-forming aids be set. The product is also suitable for the production of synthetic resin plaster. Fine dispersible, with high pigment binding capacity, good water and alkaline resistance, excellent compatibility with pigments and fillers.
AE 1175	Cationic acrylic copolymer dispersion	45 in water	4.0-5.0	15	max. 300	For the production of insulating wall paints, colorless and pigmented primer on woods with penetrating ingredients. Excellent barrier effect and very good water resistance.
AE 1194	Copolymer dispersion	50 in water	8,3-8,7	0	1.000 – 2.000	For the production of emulsion paints indoors and outdoors, broad compatibility with pigments and fillers, good gloss, water and alkali resistance, fast drying and very high transparency, also for leather coating.
VA 9108	Pure acrylic emulsion	30 in water	4.5-5.5	-	max. 3.000	For clear and pigmented coating with excellent barrier effect and very good water resistance.
VA 9112	Cationic copolymer dispersion	45 in water	4.0-5.0	19	max. 200	For the production of nicotine-insulating wall paints with excellent barrier effect.
LW 9216	Pure acrylic dispersion	55 in water	7.0-8.0	0	max. 500	High blocking resistance and high gloss in emulsion paints.
AE 1191	Cationic copolymer Dispersion	45 in water	4.5-5.5	-	max. 1.000	For the production of nicotine-isolating wall colors with excellent barrier effect.
AE 1299	Metal salt-containing acrylate solution	27 in water	8.0-9.0	-	max. 200	For producing water-resistant polymer films, high mechanical resistance, and good removability. Re-removability of the films by alkaline cleaners is possible. This product is recommended for use in floor care.
AE 1126	HS acrylate dispersion	62 in water	5.5-6.5	0	100 – 1.000	AE 1126 allows the formulation of clear caulks with an outstanding combination of rheology, adhesion and high solids using a single dispersion, with outstanding characteristics: - high-elastic and transparent in thick layers, TG = 8°C.
AE 1276	Metal salt-anionic acrylate solution	27 in water	8.0-9.0	-	max. 200	For producing water resistant polymer films with high scratch resistance. Re-removability of the films alkaline cleaner is possible without residue.
AE 1277	Styrene acrylic dispersion	50 in water	8.0-9.0	1	1.000 – 2.000	AE 1277 is characterized by high flexibility and good pigment wetting.The product is suitable for the production of fillers.
AE 1208	Pure acrylic emulsion	55 in water	7.0-8.0	<1	max. 1.000	For high gloss emulsion paints for the production of very easy processable and DIY lacquer-systems, high block resistance which is usually demanded for window- and door-application.

VARAMUL; Acrylic resins, water-based dispersions, solutions

Product	Monomer	Supply Form [%]	pH value	MFFT [C°]	Viscosity [mPa.s]/20°C	Main uses and characteristics
AE 1225	Anionic pur-acrylic emulsion	50 in water	8.5-9.0	14	1.600 – 2.400	For the production of emulsion paints in indoor and outdoor with broad compatibility with pigments and fillers, good gloss, water and alkali resistance, flexible and blockproof in balanced measure.
AE 1298	Very finely dispersed acrylate dispersion	30 in water	4.5-5.5	-	max. 300	AE 1298 is due to its low particle size in particular dimensions for the production of plaster depths. For the formulation of a ready-to-use base, we recommend the setting a solid of about 15%. The weather and saponification stability of the solvent-free dispersion enables the outdoor use.
AE 1271	Hard methacrylate copolymer dispersion	50 in water	7.5-8.5	95	500 – 3.000	Very hard polymer for improving the surface properties in water-based paint systems.
AE 1281	Anionic acrylic copolymer dispersion	49 in water	7.0-8.0	16	max. 500	AE 1281 is due to its alkali compatibility for mixing with water glass. For this purpose, the product was formulated ammonia-free. Excellent alkali and cement compatibility and high flexibility.
AE 1270	Pure acrylic emulsion	45 in water	7.0-8.0	12	max. 500	Self-crosslinking acrylic polymer for the formulation of aqueous furniture lacquers with good resistance against household chemicals.
AE 1283	Hard methacrylate copolymer dispersion	47 in water	8.0-9.0	70	max. 500	Very hard polymer for improving the surface properties in water-based paint systems.
AE 1262	Aqueous, finely divided acrylate copolymer dispersion	40 in water	7.5-8.5	4	max. 1.500	AE 1262 is suitable for the formulation of wet-transparent, non-inflammatory and wood stains.
AE 1273	Methacrylat Copolymer Dispersion	52 in water	7.0-8.0	13	max. 300	A binder for the production of cementitious coatings as well as tile adhesives and building adhesives. It is characterized by high initial adhesion and fast setting. Excellent alkali and cement compatibility and high flexibility.
AE 1274	Cationic acrylic dispersion	36 in water	4.0-5.0	9	max. 500	AE 1274 is particularly suitable for the production of colorless and pigmented primers on wood for the isolation of soluble wood ingredients with excellent barrier effect and very good water resistance.
AE 1241	Aqueous pure acrylate dispersion	45 in water	7.0-8.0	13	max. 1.000	For the formulation of aqueous wood and furniture lacquers with good resistance against household chemicals.
AE 1286	Pure acrylic dispersion	45 in water	7.0-8.5	<1	max. 500	AE 1286 is a core-shell dispersion that is used to formulate glazes with good early water and block resistance, primers on wood.
AE 1257	Acrylic copolymer dispersion	45 in water	8.0-9.0	57	max. 500	Self-crosslinking acrylic for aqueous wood and furniture coatings, the coating film is harder than 1410 with better durability.
XK-4498	Pure acrylic dispersion	45 in water	7.0-8.5	<1	max. 500	Self-crosslinking pure core-shell dispersion that incorporates excellent block and alkaline resistance and extraordinary wet adhesion with minimal water absorption. The product displays early water resistance and very good weathering, as well as a non-yellowing elastic film. This emulsion shows excellent adhesion to difficult substrates such as metals and plastics. This emulsion is APEO free.
AE 1219	Cationic acrylic copolymer dispersion	38 in water	4.5-5.5	15	max. 500	For the production of colorless and pigmented primers on wood for the isolation of soluble wood ingredients with excellent barrier effect and very good water resistance.
AE 1307	Aqueous pure acrylic emulsion	48 in water	7.5-8.5	<1	max. 1.000	Pure acrylate dispersion with core-shell structure for the formulation of solvent-poor and -free decorative paints with low water absorption.
AE 1340	A super hydrophobic acrylic dispersion	47 in water	7.0-8.0	16	700 – 3.000	Self-crosslinking super hydrophobic acrylic dispersion for anti-corrosive paints, stain locking, and adhesion promoted two phase acrylic dispersion with low MFFT combined with high surface hardness, less VOC demand in formulations, fast drying and high blocking resistance, high level of elasticity and fast sandability.

VARAMUL; Acrylic resins, water-based dispersions, solutions

Product	Monomer	Supply Form [%]	pH value	MFFT [C°]	Viscosity [mPa.s]/20°C	Main uses and characteristics
AE 1391	Cationic acrylic copolymer dispersion	45 in water	4.5-5.5	-	max. 1.000	It is particularly suitable for the production of nicotine-insulating wall colors, with excellent barrier effect and properties.
AE 1319	Acrylic dispersion	30 in water	7.5-8.5	-	max. 200	Finely disperse acrylate dispersion, is due to its low particle size in particular dimensions for the production of plaster depths. For the formulation of a ready-to-use base
LDM 414	Non-plasticized aqueous copolymer dispersion	50 in water	8.0-9.0	15	500 – 3.500	Copolymer dispersion based on acrylic and methacrylic acid esters. LDM 414 is especially designed as a binder for high-quality exterior coatings with excellent adhesion properties, for example on old alkyd coatings or zinc plates. The special adhesion and cross-linking system of LDM 414 give rise to outstanding wet adhesion in addition to low dirt-pickup. Excellent outdoor durability, good wet adhesion,good elasticity, adheres to mineral, wood and metal substrates, use in clear and pigmented coatings.
AE 1381	Cationic emulsion acrylic polymer	36 in water	5.0-7.5	-	max. 40	Cationic emulsion for antimicrobial coatings contain toxic biocides such as organic compounds, halogens and heavy metals which are (slowly) released into the environment to poison the microbes.
AE 1502	Soil-Release-Polymerdispersion	6 in water	-	-	max. 800	AE 1502, a thixotropic soil release gel, is used in cleaning procedures for heavily adhesive industrial pollution its use, such as in spray painting of the automotive industry, the engineering industry and the furniture industry.

VARALAN; Polyurethane- / epoxy silan-curable, dispersions acrylic resins

Product	Monomer	Supply Form [%]	pH value	Tg [°C]	Viscosity [mPa.s]/20°C	Main uses and characteristics
KX-4499	Hydroxyl Functional Cationic Acrylic	30 in water	5.0-6.0	32	300 – 800	KX-4499 is a polymer for water base paint and coatings for exterior concrete. Some applications these are best used on are parking lots, surrounding pool areas, and garage paint.This polymer will crosslink at room temperature with polyisocyanates and epoxy silanes (Epoxy Silane Z-6040). The ambient dried film will have excellent resistance to solvents, such as, MEK, Acetone and IPA. Detergents and cleaners will not remove this film. Water resistance is excellent. The dried film will also resist staining.
KX-4470	Hydroxyl Functional Cationic Acrylic	38 in water	5.0-6.0	32	500 – 1.500	Hydroxyl functional cationic acrylic emulsion Polymer. This polymer will crosslink at room temperature with polyisocyanates and epoxy silanes. The fastest and most resistant coating can be formulated with the combination of a polyisocyanate and an epoxy silane.
KX-4463	Hydroxyl Functional Cationic Acrylic	40 in water	5.0-6.0	38	500 – 1.500	This polymer will crosslink at room temperature with polyisocyanates and epoxy silanes (Epoxy Silane Z-6040). The ambient dried film will have excellent resistance to solvents, such as, MEK, Acetone and IPA. Detergents and cleaners will not remove this film. Water resistance is excellent. The dried film will also resist staining. OH= 65-80%)
KX-4410	Hydroxyl Functional Cationic Acrylic	40 in water	5.0-6.0	30	500 – 1.500	Hydroxyl functional cationic acrylic emulsion Polymer. This polymer will crosslink at room temperature with polyisocyanates and epoxy silanes. The fastest and most resistant coating can be formulated with the combination of a polyisocyanate and an epoxy silane.

VARACOR; Special acrylic resins, water-based dispersions

Product	Monomer	Supply Form [%]	pH value	Tg [°C]	Viscosity [mPa.s]/20°C	Main uses and characteristics
WA 7303	Metal free, alkali soluble emulsion of a high molecular weight acrylic resin	40 in water	2.0-4.0	67	max. 200	Excellently suited as a component for improving the levelling of dry bright emulsions. The product can also be used for the manufacture of clear polishes with medium and high polymer content and as an additive for increasing the hardness of the dry residue.
WA 7330	High molecular acrylic	30 in water	7.5-8.5	49	300 – 700	WA 7330 has been particularly useful as a mesh resin and to improve the course the production of care and cleaning agents based on polymer dispersions proven, good flow properties and high gloss.
WA 7402	Acrlyic copolymer dispersion	38 in water	7.2-7.8	-	max. 200	WA 7402 is a soft dispersion that works great as a binder for leather coatings and shoe polish has proven. Leather and shoe coatings based on WA 7402 have a very good water resistance, but are still permeable to water vapor.
WA 7516	Acrlyic copolymer dispersion	45 in water	6.5-9.5	-	max. 300	WA 7516 has proven itself as a mixed polymer in leather preparation. The addition of WA 7516 reduces in polishable and non-polishable systems the surface smoothness.
WA 7570	Acrlyic copolymer dispersion	41 in water	7.0-8.0	-	max. 300	WA 7570 is used in cosmetic products as a film former.This product is listed in the following registers: United States E.P.A., TSCA Inventory and Cosmetic, Toiletry and Fragrance Association Cosmetic Ingredient Dictionary (CTFA). MFT / 18 °C.
WA 7530	Hard methacrylate copolymer dispersion	40 in water	5.0-6.0	-	max. 200	WA 7530 is ideal as a polymer component for the formulation of carpet shampoos.
WA 7587	PUR anionish acrylic dispersion	40 in water	8.2-8.8	-	max. 200	WA 7587 is ideal as a polymer component for the production of hard floor coatings, hard polymer body and excellent water resistance.
WA 7360	Styrene copolymer	14 in water	8.0-9.5	-	max. 500	WA 7360 is particularly suitable for the production of floor care products as an additive for improving wetting and leveling properties, especially when good alcohol resistance is required.
WA 7711	PUR cationic acrylic dispersion	26 in water	approx. 5	-	300 – 800	Good compatibility with cationic systems.
WA 7799	Styrene acrlic dispersion, with metal	38 in water	8.1-9.1	-	max. 300	WA 7799 is outstandingly suitable for the production of highly polymer-containing self-shining emulsions and wiping agents with good detergent resistance and very good durability. It is particularly suitable for the production of high-speed polishable coatings. The care films of this product are characterized by their lightness removability with alkaline cleaners.
WA 7292	Styrene acrlic copolymer disoersion, Containing metal salt	40 in water	8.5-9.1	-	max. 200	For production of high gloss Self-gloss emulsions with very good mechanical properties and detergent resistance. In combination with waxes and possibly acrylate resins, such. B. WA 7301, leave with WA 7292 also very good formulations in the high - speed range create.
WA 7301	High molecular acrylic	25 in water	8.0-9.0	67	max. 800	WA 7301 is ideal as a blending component to improve the Course of self-shine emulsions.The product can also be very good for the production of medium wipes and high polymer content and as an additive to increase the hardness of the dry residue be used.
WA 7272	Styrene acrlic copolymer disoersion, Containing metal salt	40 in water	8.0-9.0	-	max. 300	WA 7272 is mainly used in the application of floor care products, large consumers, e.g. authorities or hospitals, proven. This product has exceptionally good resistances, e.g. against alcoholic cleaner, and is therefore suitable for "high-speed" polishing.

VARACOL; Acrylic resins, water-based, containing hydroxyl groups

Product	Solvent	Solid [%]	pH value	OH-Value [%]	Viscosity [mPa.s]/20°C	Main uses and characteristics
AH 530 W	Water / solvent blend	44	7.0 - 9.0	3.0	max. 6.000	Water emulsified hydroxyacrylate for the production of exterior resistant isocyanate crosslinked two component top coats with outstanding drying properties
AH 540 W	Water / solvent blend	45	7.0 - 9.0	4.1	max. 25.000	For the production of isocynate crosslinked exterior resistant two component top coats with exhibit long potlife, high gloss and good adhesion properties.
AH 542 W	Water / propylenglycol -n-butylether / S100	45	7.0 - 8.5	4.1	max. 6.000	AH 542 W is a water-emulsified hydroxyacrylate for the preparation of isocyanate-cured, exterior-resistant 2K topcoats, characterized by long pot life,.
AH 560 W	Water / Butylglycol / KW 155-180	43	7.0 - 9.0	6.0	max. 8.500	Water emulsified hydroxyacrylate for the production of exterior resistant isocyanate crosslinked two component top coats, aircraft coatings, with outstanding drying properties, film hardness and gloss. Good adhesion properties and resistance to Skydrol (Solutia) and mark brake fluid.
AH 533 W	Water	42	7.0 - 9.0	3.3	<2.000	533 is a water-emulsified hydroxyl acrylate for the preparation of isocyanate-curing two component top coats which exhibit long pot-life and good adhesion properties.
AH 504 W	Water / EEP Butylglycol	45	7.0 - 9.0	4.1	<6.000	A water-emulsified hydroxyl acrylate for the preparation of isocyanate-curing 2K furniture lacquers.
AH 587 W	Water / Butylglycol / S100	43	7.0 - 9.0	6.0	<8.500	Water emulsified hydroxyacrylate for the preparation of isocyanate-crosslinked skydrol-resistant 2K topcoats, which have a long pot life, high gloss, good adhesion properties and resistance to Skydrol (Solutia) and Mark brake fluid.
AH 543 W	Water / butylglycol / EEP	45	7.0 - 9.0	4.1	<20.000	For the preparation of isocyanate-cured, exterior-resistant 2K topcoats, which are characterized by a long pot life, high distinguish gloss and good adhesion properties.
AH 531 W	Water	45	7.0 - 9.0	3.0	<2.000	Water-dispersed hydroxyacrylate for the preparation of isocyanate-cured 2K topcoats, characterized by long pot life, good adhesion properties and high UV resistance.
AH 529 W	Water	45	7.0 - 9.0	3.0	<1.000	For 2K-PU-componnet waterbased coatings, high gloss and good adhesion properties.
AH 525 W	Water	45	7.0 - 9.0	2.5	<2.000	Water-dispersed hydroxyacrylate for the preparation of isocyanate-cured 2K topcoats, characterized by long pot life, good adhesion properties and high UV resistance.
AH 515 B	n-Butanol	50	7.0 - 9.0	1.5	900 – 1.200	For use in low bake stoving system with amino resin, used in application industrial coatings. Excellent gloss and colour retention, excellent durability.
AH 526 W	Water	42	7.0 - 9.0	2.5	max. 2.000	A water emulsified hydroxylated for the production of isocynate crosslinked two component top coats which exhibit long potlife and good adhesion properties.
AH 518 W	W/BG/BA	47	7.0 - 9.0	1.8	max. 25.000	A water-emulsified hydroxyl acrylate for the preparation of 2K-PU furniture and wood lacquers and top coats.
AH 541 W	W/BG/S100	45	7.0 - 9.0	4.1	max. 25.000	A hydroxy-functional, aqueous acrylate resin for the production of high quality, aqueous wood and furniture varnishes, top coats, very good resistance to solvents, greases, household cleaners and various chemicals.
AH 544 W	Water	42	7.0 - 9.0	4.2	max. 2.000	For the production of isocyanate cross-linked two component top coats which exhibit long pot-life.
AH 545 W	Water / EEP butyl acetate	58	6.0 - 9.0	4.2	8.000 - 20.000	For the manufacture of outdoor resistant top coats.



VARA-DIPCOAT ED 310 MP-65

Corrosion protection on a large scale: cathodic electro-dip coating

External cross-linking acrylate binder for application in cathodic electro dipping coating

Delivery Form
65 % in methoxypropanol (65MP), non-neutralized

Applications and Properties
VARA-DIPCOAT ED 310 MP-65 serves in combination with suitable curing agents (for example Additol VXW 6385) for the production of white or bright coloured electro dipping paints.

By means of suitable catalysis, for example with tin compounds, at baking temperatures of 160 °C, glossy and highly anticorrosive paint films can be manufactured.

Besides the conventional application as binder for pigmented primer or one-layer systems, **DIPCOAT ED 310 MP-65** may also be applied as clear paint for the production of transparent protective coatings on iron and non-iron metals due to its non-yellowing tendency.

Product Specifications

Property	Range	Unit	TM
Colour value	yellow-orange	-	Appearance VLN 250
Viscosity (25 °C), Brookfield, Sp.4 20 rmp.	40.000 – 50.000	mPa.s	DIN EN ISO 2555
Solid content	63 – 67	%	DIN EN ISO 3251
Acid-value	3 - 10	-	DIN 53183
OH-content, solid	approx. 4,5	%	DIN 53240/2
Flash point	approx. 33	°C	DIN EN 22719
Density, 20 °C	1,04	g/cm³	DIN EN ISO 2811

Principal Properties
Low temperature cure 125-160 C
Easy to control
Non hazardous
Hard deposits 4H or more depending upon the cure used
Enhanced wear resistance
Excellent adhesion on all substrates
Excellent throwing power
High level of gloss without the use of high solvent concentrations

VARA-DIPCOAT ED 316 Q-60

Corrosion protection on a large scale: cathodic electro-dip coating

External cross-linking E-Coat Epoxy-Amine binder for application in cathodic electro dipping coating

Delivery Form
60 % in butyl glycol / water

VARA-DIPCOAT ED 316 Q-60 is a hydroxyl rich, water soluble cathodic E.D. resin that contains a built in acid catalyst which means that it can be crosslinked with a melamine resin.

The resulting resin has excellent pigment wetting properties and exhibits excellent corrosion resistance.

Product Specifications

Property	Range	Unit	TM
Colour value	max. 2	-	Appearance VLN 250
Viscosity (25 °C), Brookfield, Sp.4 20 rmp.	10.000 – 20.000	mPa.s	DIN EN ISO 2555
Solid content	59 – 61	%	DIN EN ISO 3251
Acid-value	max. 1	-	DIN 53183
Density, 20 °C	1,025	g/cm³	DIN EN ISO 2811

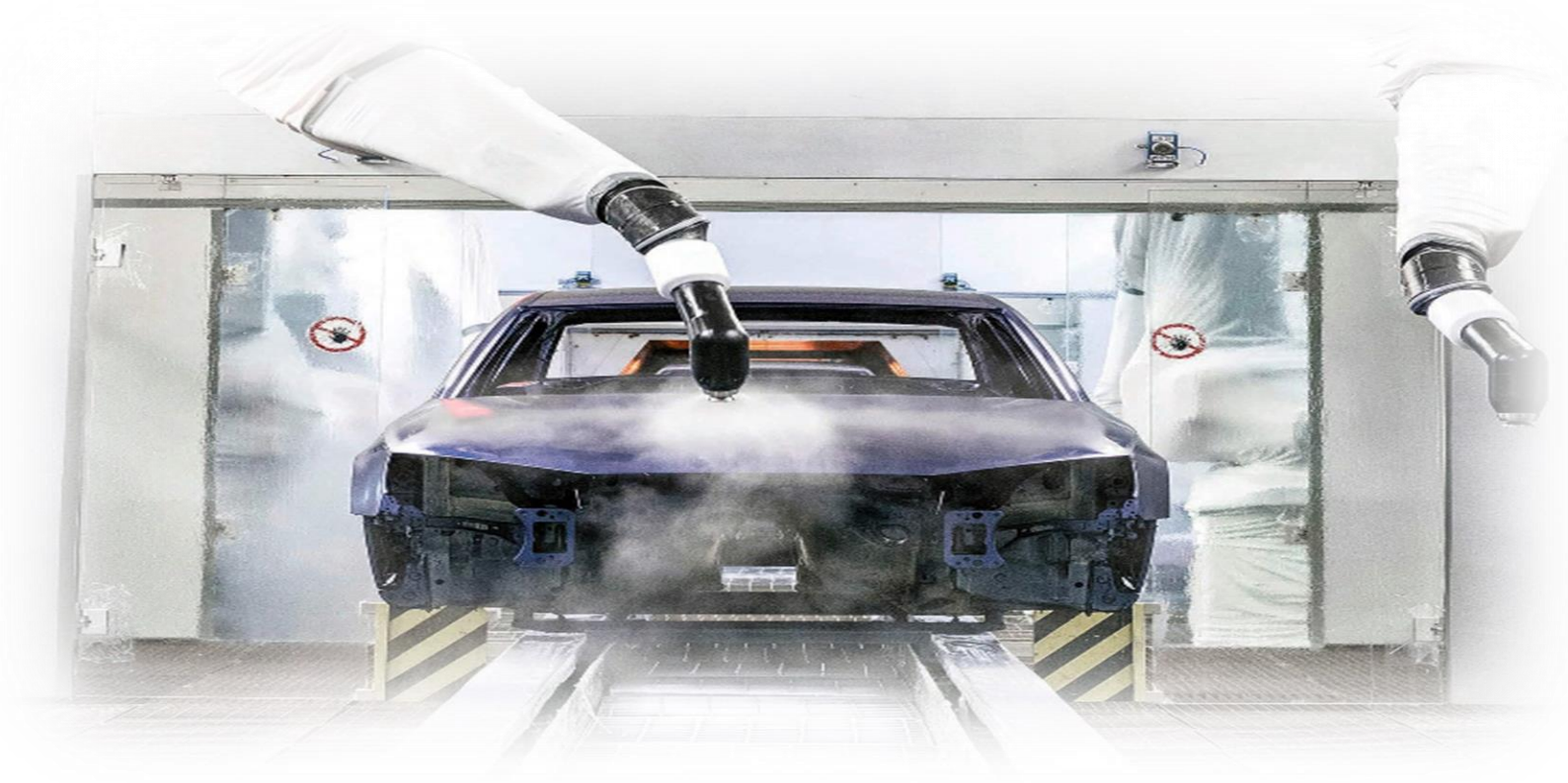
VARASOIL GEL A 1337

A modified polymer, based thixotropic polyacrylate

VARASOIL GEL A 1337 is a thixotropic soil release agent, is used in cleaning processes for heavily adhering industrial contaminants, for example in the spray painting sector of the automotive industry, mechanical engineering and the furniture industry.The substrates used are float glass, aluminum, stainless steel, galvanized sheet metal, glazed tiles, as well as PMMA and PC.

VARSOIL GEL A 1337; thixotropic soil release agent

Product	Characteristics	Nonvolatile Content [%]	Viscosity [mPa.s] / 23°C	Application
VARASOIL GEL A 1337	High molecular, acrylic modified polymer	6	max. 800	VARASOIL GEL A 1337 is a thixotropic soil release agent, is used in cleaning processes for heavily adhering industrial contaminants, for example in the spray painting sector of the automotive industry, mechanical engineering and the furniture industry.The substrates used are float glass, aluminum, stainless steel, galvanized sheet metal, glazed tiles, as well as PMMA and PC. VARASOIL GEL A 1337 is applied by brush, roller or brush spray gun applied (minimum dry film thickness: 20 µm). The drying time of the polymer application after the application is about 2 hours at room temperature. The film is then stable to elevated temperatures and increased humidity, as well as to contamination with aqueous or solvent-based paints and varnishes.



Acrylic dispersion based on renewable raw materials (starch/cellulose)

VARABIOMER

Specifically developed for **transparent and pigmented wood coatings, decorative paint.**

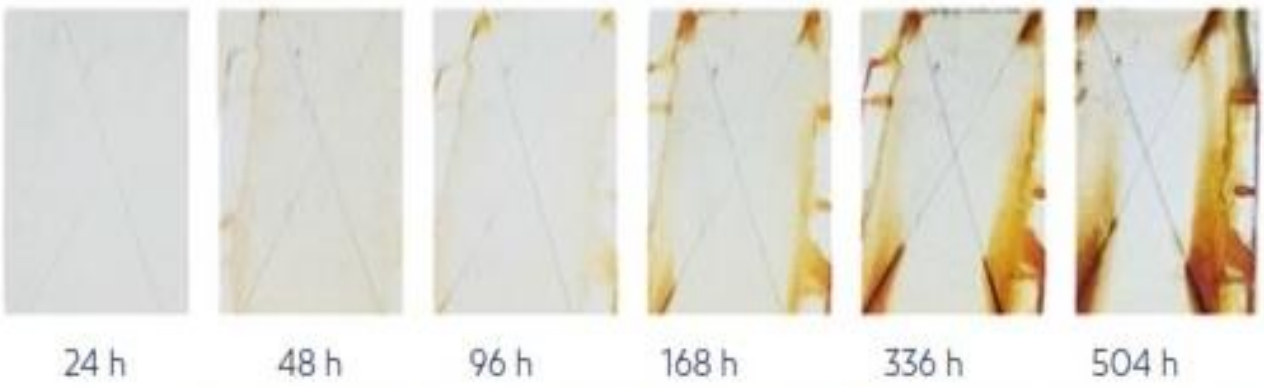
The VARABIOMER dispersion is characterized by a rapid hardness increase and high adhesion to substrates as well as high anti-blocking, i.e. it has excellent properties of the coatings' ability to resist adhesion to itself.

FLAMEPROTECT

VARASHIELD PR 890 W

Fire retardants that are halogen-free
BUT FULL OF FIRE-STOPPING POWER

Water based acrylic copolymer, specialty developed as all-in-one adhesion promoter, corrosion inhibitor and reactive halogen free flame retardant for metal, wood, glass, minerals and composites.



VARAPEEL

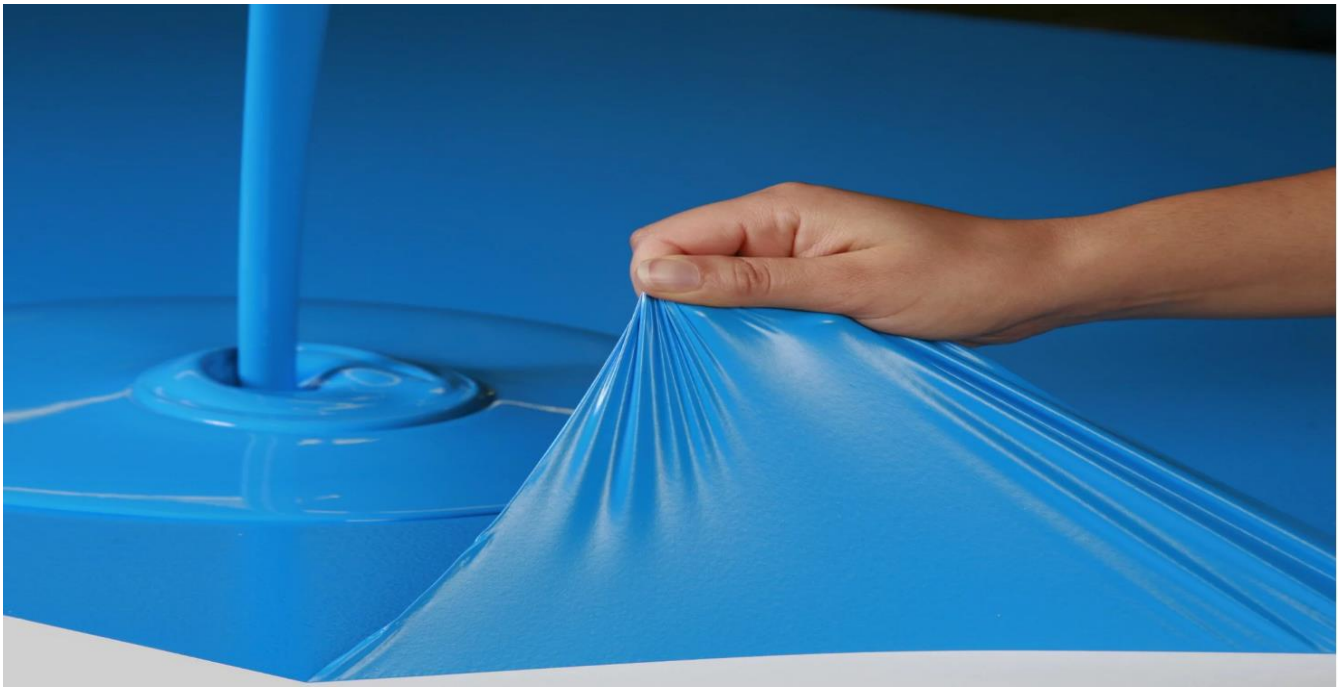
Water-based removable coating resin

A fast drying water-based acrylic for removable coating for protection in harsh, outdoor, unsheltered applications.

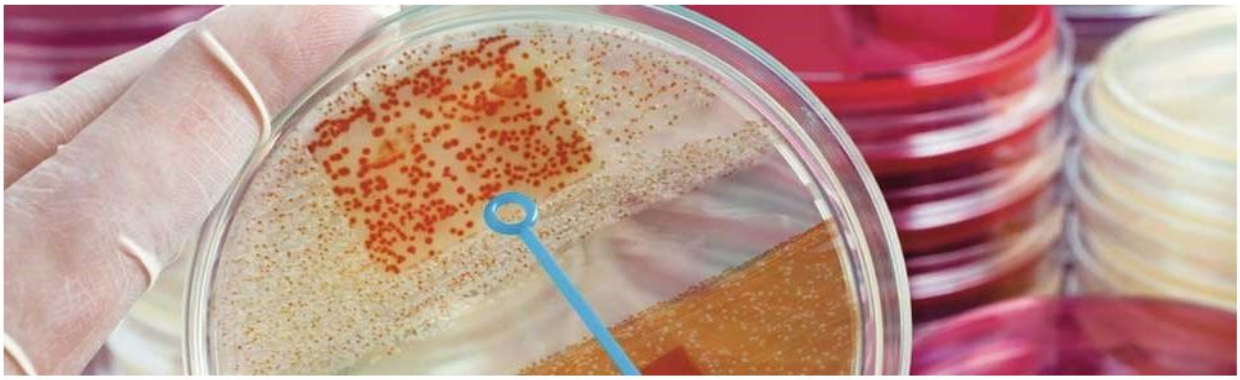
Provides multimetal protection. Excellent UV resistance.

Applications

Automotive
Mining machinery
Marine
Aviation
Filming & studio use
Construction industry
Fibre glass industry
Metal works and fabrication
Brass, copper & aluminium protection
Spray booths
Signage and advertising
Protection of pre-painted surfaces
Stop-off coating in electroplating
Glass and glazing industry
Casting moulds



HYGIENEPROTECT



A novel antimicrobial coating technology

High-quality, effective and environmentally friendly finishes for all surfaces

In coating applications there is an increasing need globally for safe protection against bacteria, algae and fungi, and to avoid poor appearance for example on bathroom and exterior walls.

Inspired by nature – technology that acts like a cactus

Coatings with Hygiene**Protect AM 240** will have long-lasting antimicrobial protection against a wide range of microbes with no risk for microbial resistance. These benefits allow paint manufacturers to differentiate their paints with offering hazardous symbol free paint formulation for exterior and interior applications.

Hygiene**Protect** is suitable for decorative paints and coatings.

VARENA CHEMICAL is a global company in the intermediates, coating, adhesives, inks and composite and solid surface resins, thermoset compounds, gel-coats and niche specialties and specialty additives for coatings and inks.

VARENA CHEMICAL is known for its superior quality and impressive range of products and with its excellent distribution network it can provide first-class service to customers whatever their market. Customer Service and Technical Service teams are renowned for their customer focus, offering the best service even after products have left manufacturing.

The group strives to keep customers satisfied, assisting them in producing premium quality products every time they use its products.

Product innovation is important for the group's business and it's the reason for which it constantly works with customers to find solutions to problems.

Introducing new or improved products ensures that VARENA CHEMICAL continue not only to deliver what the market wants and needs, but also when it is wanted and needed.

WATER-BORNE technology
VARANOVA
PRODUCTS WITH PRESPECTIVE

PRODUCTS FOR A SECURE FUTURE
VARABIOMER
RENEWABLE RESINS

THE SPECIALITY SUPPLIER FOR COATINGS; INKS; ADHESIVES & SOLID SURFACE